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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/529,473 | 03/28/2005 | Jarmo Ruohonen | 0365-062SPUSI | 8171 |
| 2292 7590 10/04/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | EXAMINER CWERN, JONATHAN | |
| | | | ART UNIT 3737 | PAPER NUMBER |
| | | | NOTIFICATION DATE 10/04/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/529,473

Applicant(s)

RUOHONEN, JARMO

Examiner

Jonathan G. Cwern

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 1-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/28/05 and 6/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 3/28/05 and 6/28/05 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

3. Claims 1-14 are objected to because of the following informalities:
4. In claim 1, the layout of the claim is objected to as being improper. Each element of the claim should be separated by a semicolon, rather than with dashes, and also a colon following the preamble. It is suggested to restructure the layout of the claim.
5. Claims 4-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox et al. (US 2003/0050527) in view of Vilsmeier (US 7194295).

Fox show, with respect to claims 1-3, a method for modeling different internal structures of a head, such as different parts of the brain, in order to focus magnetic stimulation and/or visualize the results of magnetic stimulation, MEG or EEG ([0025]-[0028]), the method comprising the step of determining the location of the internal structures, such as the different cerebral parts, of at least one first head (B) in a three-dimensional space by technical means, e.g., magnetic resonance imaging or computer-aided tomography ([0025]-[0028]), and determining the external structure (dimensions of the scalp surface are determined by the 3-D digitizer, [0025]-[0028]).

Fox fails to show, with respect to claims 1-3, using a model of a second head for the external dimensions, and scaling the internal structure for the present patient (A) to fit to the model of previously imaged external structure (B), so that anatomical images do not need to be acquired for the present patient (A); and image data is scaled by moving pixels.

Vilsmeier teaches, with respect to claims 1-3, using a model of a second head for the external dimensions, and scaling the internal structure for the present patient (A) to fit to the model of previously imaged external structure (B), so that anatomical images do not need to be acquired for the present patient (A) (column 2, line 1- column 4, line 55); and image data is scaled by moving pixels (shifting, rotating, stretching, or compressing the model on a screen output, column 3, lines 40-45).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined previous image data with the present patient's data as taught by Vilsmeier, in the system of Fox, with the motivation that this will spare the patient the radiation load, and the costs of producing the data set can be saved (Vilsmeier, column 2, lines 1-20). Although Vilsmeier does not specifically mention transcranial magnetic stimulation, there is a reasonable expectation of success to combine these references, because both are related to three-dimensional modeling of the human body for medical techniques.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached Notices of References Cited sheet.

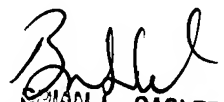
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Cwern whose telephone number is 571-270-1560. The examiner can normally be reached on Monday through Friday 9:30AM - 6:00PM EST.

Art Unit: 3737

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC
9/21/07


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